

WHAT IS CLAIMED IS:

1. An onboard power supply system comprising:
  - a power generator;
  - a first electrical power storage device charged by the power generator;
  - a second electrical power storage device; and
  - a charge and discharge control device for controlling charge and discharge of the second electrical power storage device based on at least one of a first state quantity that indicates a state of charge of the first power storage device and a second state quantity that indicates a state of power generation of the power generator.
2. The onboard power supply system according to claim 1, wherein the charge and discharge control device controls the charge and discharge of the second electrical power storage device when the first state quantity is equal to or smaller than a predetermined value.
3. The onboard power supply system according to claim 1, further comprising a power generation control device, wherein the power generation control device is connected with the power generator for controlling the state of power generation of the power generator according to operating conditions of a vehicle.
4. The onboard power supply system according to claim 3,

wherein the power generation control device reduces the power generation of the power generator when the vehicle is in an accelerating condition.

5. The onboard power supply system according to claim 3, wherein the charge and discharge control device reduces the discharge of the second electrical power storage device when the power generation of the power generator is reduced by the power generation control device.

6. The onboard power supply system according to claim 1, wherein the discharge of the second electrical power storage device is disabled during a startup of an engine.

7. The onboard power supply system according to claim 1, further comprising an electrical device that is provided with power by at least one of the first electrical power storage device and the second electrical power storage device, wherein:

the first electrical power storage device functions as a main power supply;

the second electrical power storage device functions as an auxiliary power supply; and

the second electrical power storage devices is capable of supplying the power to the electrical device whenever required.

8. The onboard power supply system according to claim 1,

further comprising an electrical device, wherein:

the first electrical power storage device functions as a main power supply;

the second electrical power storage device functions as an auxiliary power supply; and

the second electrical power storage device supplies power to the electrical device along with the first electrical power storage device.

9. The onboard power supply system according to claim 8, wherein the second electrical power storage device supplies power along with the first electrical power storage device during the power generation of the power generator.

10. The onboard power supply system according to claim 8, wherein the second electrical power storage device is directly charged by the power generator during the power generation of the power generator.

11. The onboard power supply system according to claim 1, wherein:

the first electrical power storage device is installed in an engine compartment of the vehicle; and

the second electrical power storage device is installed in any one of an interior compartment and a trunk compartment of the vehicle.

12. The onboard power supply system according to claim 1, wherein the first electrical power storage device and the second electrical power storage device are rated at same volts.

13. The onboard power supply system according to claim 1, wherein the second electrical power storage device is charged by the first electrical power storage device.